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CENTRAL FAX CENTER

NO. 6033 P. 1/10

JAN 18 2007

FAX TRANSMISSION

DATE:

PTO IDENTIFIER: Application Number 10/579,164
Patent Number

Inventor: Margit Hiller et al.

MESSAGE TO: US Patent and Trademark Office

FAX NUMBER: (571) 273-8300

FROM: CONNOLLY BOVE LODGE & HUTZ LLP

Ashley I. Pezzner

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Attorney Dkt. #: 13838-00005-US

PAGES (including Cover Sheet): 10

CONTENTS: Transmittal Of Translation Of International Preliminary Report On Patentability (1 page)
Translation Of International Preliminary Report On Patentability (7 pages)
Certificate of Transmission (1 page)

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CENTRAL FAX CENTER

NO. 6033 P. 2/10

Application No.: 10/579,164

Docket No.: 13838-00005-US

JAN 18 2007

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Margit Hiller et al.

Application No.: 10/579,164

Confirmation No.: N/A

Filed: May 12, 2006

Art Unit: N/A

For: METHOD FOR PRODUCING
FLEXOGRAPHIC PRINTING FORMS BY
THERMAL DEVELOPMENT

Examiner: Not Yet Assigned

TRANSMITTAL OF TRANSLATION OF INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY

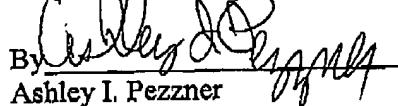
MS PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicant submits herewith the translation of the International Preliminary Report On Patentability ("IPRP") issued in the corresponding international application. The international Examiner has deemed that claims 1-15 possess novelty, inventive step and industrial applicability. The European reference cited in the IPRP was cited by Applicant in an Information Disclosure Statement filed with the application on May 12, 2006.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 03-2775, under Order No. 13838-00005-US.

Respectfully submitted,

By 
Ashley I. Pezzner

Registration No.: 35,646
CONNOLLY BOVE LODGE & HUTZ LLP
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From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY
(CHAPTER I OR CHAPTER II)

OF THE PATENT COOPERATION TREATY
(PCT) Rules 44bis, 3(c) and 8
Theodor-Heuss-Anlage 12
D-68165 Mannheim

To:

ISENBRUCK BÖSL HÖRSCHLER WICHMANN HUHN
Theodor-Heuss-Anlage 12
68165 Mannheim
ALLEMAGNE

| | |
|-------|----|
| B1 | |
| B2 | |
| B3 | |
| Sekr. | JN |
| EDV | |
| Abtg. | |

Date of mailing (day/month/year)
26 October 2006 (26.10.2006)

02. Nov. 2006

Applicant's or agent's file reference
0000055079

Frist:
Vorfrist:
WV.

IMPORTANT NOTIFICATION

International application No.
PCT/EP2004/012787

International filing date (day/month/year)
11 November 2004 (11.11.2004)

Applicant

XSYS PRINT SOLUTIONS DEUTSCHLAND GMBH et al

1. Transmittal of the translation to the applicant.



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).



The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

KR

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

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3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

Yolaine Cussac

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TRANSLATION PATENT COOPERATION TREATY
PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

| | | |
|--|---|---|
| Applicant's or agent's file reference 0000055079 | FOR FURTHER ACTION | See Form PCT/IPEA/416 |
| International application No. PCT/EP2004/012787 | International filing date (day/month/year) 11.11.2004 | Priority date (day/month/year) 17.11.2003 |
| International Patent Classification (IPC) or national classification and IPC G03F7/36, G03F7/033 | | |
| Applicant XSYS PRINT SOLUTIONS DEUTSCHLAND GMBH | | |

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 6 sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

- (*sent to the applicant and to the International Bureau*) a total of 3 sheets, as follows:
 - sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
- (*sent to the International Bureau only*) a total of (indicate type and number of electronic carrier(s)) _____ containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

- Box No. I Basis of the report
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

| | |
|---|-----------------------------------|
| Date of submission of the demand | Date of completion of this report |
| Name and mailing address of the IPEA/EP | Authorized officer |
| Facsimile No. | Telephone No. |

Form PCT/IPEA/409 (cover sheet) (January 2004)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2004/012787

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

This report is based on translations from the original language into the following language _____ which is the language of a translation furnished for the purposes of:

International search (Rule 12.3 and 23.1(b))
 publication of the international application (Rule 12.4)
 International preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):

the international application as originally filed/furnished
 the description:
 pages 1-31 _____ as originally filed/furnished
 pages* _____ received by this Authority on _____
 pages* _____ received by this Authority on _____

the claims:
 nos. _____ as originally filed/furnished
 nos.* _____ as amended (together with any statement) under Article 19
 nos.* 1-15 _____ received by this Authority on 15.09.2005 with letter
 of 14.09.2005
 nos.* _____ received by this Authority on _____

the drawings:
 sheets _____ as originally filed/furnished
 sheets* _____ received by this Authority on _____
 sheets* _____ received by this Authority on _____

a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. The amendments have resulted in the cancellation of:

the description, pages _____
 the claims, nos. _____
 the drawings, sheets/figs _____
 the sequence listing (specify): _____
 any table(s) related to sequence listing (specify): _____

4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

the description, pages _____
 the claims, nos. _____
 the drawings, sheets/figs _____
 the sequence listing (specify): _____
 any table(s) related to sequence listing (specify): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

| INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY | | International application No. PCT/EP2004/012787 |
|--|---|--|
| Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | |
| 1. Statement | | |
| Novelty (N) | Claims | <u>1-15</u> YES Claims _____ NO |
| | Claims _____ | |
| Inventive step (IS) | Claims | <u>1-15</u> YES Claims _____ NO |
| | Claims _____ | |
| Industrial applicability (IA) | Claims | <u>1-15</u> YES Claims _____ NO |
| | Claims _____ | |
| 2. Citations and explanations (Rule 70.7) | | |
| <p>Document EP 0 778 297 (D1), considered to be the closest prior art, discloses a method for the preparation of flexographic printing plates by means of a thermal development process using a developing fluid (see page 9, lines 6-12), the base material used being a photopolymerisable flexographic printing element that comprises, in a superposed arrangement:</p> <ul style="list-style-type: none"> - a dimensionally stable substrate (PET); - a photopolymerisable, relief-forming layer (see example 1 on page 9) comprising an elastomer bonding agent (styrene-butadiene-styrene block copolymer in a proportion of <u>27</u> wt.% relative to the sum of all the components of the relief-forming layer / with a molecular weight of 150,000 Mw and a styrene content of 20 wt.% relative to the bonding agent, the proportion of butadiene, which is 1,2-linked, relative to the bonding agent being 32 wt.%), ethylenically unsaturated monomers (1,9-nonenediol diacrylate), a softener (oligomer polybutadiene NissoTM PB B1000, 30 wt.%) and a photo initiator (benzoin methyl ether), <p style="text-align: right;">/...</p> | | |

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/012787

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability:
dilections and explanations supporting such statement

the aforementioned method comprising the following steps:

- (a) the image-by-image irradiation of the photopolymerisable, relief-forming layer with actinic radiation;
- (b) the heating of the irradiated flexographic printing element to a temperature of 50°C (see page 9, line 8),
- (c) the removal of the softened non-polymerised portions of the relief-forming layer, a printing relief being thereby created (see page 9, lines 6-12).

The subject matter of claim 1 differs from D1 in that the proportion of the styrene-butadiene-styrene block copolymers is between 35 and 50 wt.% relative to the sum of all the components of the relief-forming layer.

The problem addressed by the present invention can consequently be regarded as that of devising a method for producing flexographic printing blocks by means of a thermal development process, the SBS-based printing blocks having an improved exposure latitude (see the present application, page 3, lines 29-34).

The solution to the above problem, as proposed in claim 1 of the present application, can be considered inventive (PCT Article 33(3)), the reasons being as follows (PCT Article 33(3)):

/...

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/012787

| | |
|-----------|---|
| Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
|-----------|---|

The very small proportion of the styrene-butadiene-styrene block copolymers, namely 35 wt.%, can be considered inventive since this small amount has an unexpected effect by comparison with a proportion of 27 wt.% (see D1). The critical nature of the lower threshold of 35 wt.% in the light of the method according to the invention is demonstrated in example 2 and the comparative example V4. In example 2, the relief-forming layer contains *circa* 38 wt.% of Kraton® D-119. In comparative example V4, the amount is only *circa* 31.5 wt.%.

According to comparative example V4, however, no flexographic printing elements are obtained that are suitable for the thermal development process as per the invention (exposure latitude = -6 mn; see page 30, table 2) - by contrast with the flexographic printing element according to example 2 (exposure latitude = 0 mn; see page 30, table 2). A high level of positive exposure latitude is desirable.

Thus, the subject matter of claim 1 involves an inventive step.

Dependent claims 2-15 are dependent on claim 1 and, in consequence, also satisfy the requirements of the PCT in respect of novelty and inventive step.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/012787

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

1. Contrary to PCT Rule 5.1(a)(ii), the description does not cite document D1 or indicate the relevant prior art disclosed therein.
2. The description is not consistent with the newly submitted claims.

Application No. (if known): 10/579,164

Attorney Docket No.: 13838-00005-US

Certificate of Transmission under 37 CFR 1.8

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on 1/18/07

Date

Signature

Amy L Hamm
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(302) 658-9141

Telephone Number

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Transmittal Of Translation Of International Preliminary Report On
Patentability (1 page)
Translation Of International Preliminary Report On Patentability (7 pages)

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